SCIENTIFIC NEWS.

—THE attempts made in past years by the paleontologist of the U. S. Geological Survey to prevent other paleontologists from making collections in the west are now familiar to most of our readers. A recent enterprise in this direction quite equals any of the former ones in effrontery. We learn on the best authority that Prof. O. C. Marsh has been pursuing his old tactics in the case of Prof. Osborn, of the Museum of Natural History of New York. He commenced his attack, as heretofore, by charging that dishonest methods were employed by the Professor of the Museum in obtaining specimens which really belonged to him, Prof. Marsh; and so to damage the character of Prof. Osborn with the management of the museum. These charges having been refuted, he proceeded to inform the trustees that he could not, as Government paleontologist, permit collections to be made on Government land. This not producing the desired effect, he preferred a claim based on scientific comity that he had a fair right to exclusive work in the Laramie field. The trustees of the museum failed to see the justice of this proposition, even if the claim of priority were true, which it is not, Prof. Marsh then descended to other and quite childish forms of appeal not necessary to mention here.

It remains to be seen what the U. S. Geological Survey will do with this psychological phenomenon. The demonstration of Prof. Marsh's unfitness for the position is now ample, and more is to come. But apart from all personal characteristics, such as are above described, we think it would be well if the Government material could be properly worked up and reported on. His only volume published by the present survey, that on the Dinocerata, is a good example of perfunctory work. Of the, say twenty-seven, species included in it, the remains of but one or two are described from the material actually enumerated by Prof. Marsh, the remainder of the work being left to some successor who may feel disposed to attempt a task for which all the credit has been already assumed by another. The neglect of other authors displayed in all his writings become more conspicuous recently, is also reason enough for the withdrawal from him of the aid and countenance of the U. S. Geological Survey.

—M. FRANCOIS BOCOURT, the distinguished author of the Herpetology of the Mision Scientifique de Mexique, has been retired from his

position in the Museum of Natural History of Paris. He is replaced by a retired officer of artillery, whose fitness for the place remains to be demonstrated. M. Bocourt, besides his special zoological knowledge, is an admirable artist, and his plates of reptiles are the most beautiful and accurate ever published. His retirement is greatly to be regretted, and the suspension of his work before completion will be a discredit to France. It is to be hoped that this action will be reconsidered, or if not, that provision will be made for the completion of his great work.

Biology at the Leland Stanford Junior University.—Biology had no prejudices to conquer at Leland Stanford Junior University. The President has faith in the Biological Sciences and sympathy with the laboratory methods in their study, while of the students who at the beginning applied for work in the University a fair proportion looked to these sciences for a part of their training. So, from the start, departments in biological lines were established, laboratories arranged for, and students have come forward to fill them.

Departments were established by the appointment of Dr. Douglas H. Campbell to the chair of botany, of Dr. Charles H. Gilbert to the chair of zoology, Prof. John H. Comstock to that of entomology, and of Dr. Oliver P. Jenkins to that of physiology and histology. To each of these gentlemen was left the direction and equipment of the department to which he was called. The appointments came at a time when it was impossible to predict the attendance in general for the present year, or what would be the number of students to be accommodated in each department. The pleasure of ordering a lot of new apparatus was spiced by the attempt to plan it for an unknown and an unknowable class. To attempt, for example, to order such a number of microscopes as would neither, as unused, stare one in the face for a year and reproach him for his extravagance, nor leave him to increase his work with relays of students on a short number, was a problem which demanded carĕful consideration. Most concluded to take their chances on the first horn of the dilemma to find themselves later hung up on the second. Thus it has turned out that some of the first orders have had to be supplemented or even duplicated.

The two buildings assigned to these departments were not originally intended for laboratories and are to be so employed only until the permanent biological laboratories shall be built, which exist in the plans for the near future. At present the departments of botany and physiology share one of the two buildings on the west side of the quadrangle. It is a stone building, well lighted, very pleasant, and with the

lecture rooms and offices, store room and large laboratory conveniently connected.

The planning of the furniture of the laboratories was left to the professors of the various departments. This necessitated the doing of a great deal of such work in a short space of time, and resulted in some delays. But when it is considered how much was to be done, both in furnishing and in getting together apparatus and books from such great distances, it is remarkable how few and short these delays were.

Notwithstanding these difficulties, work began in the departments with the very opening day. Not all orders were in, but enough were in to start things going, and where tables had not arrived the packing boxes of newly arrived apparatus were improvised for their support, and abandoned carpenter benches performed new duties, becoming daubed with paraffine, doused with alcohol and littered with interesting Pacific coast forms of animals and plants. Of these latter there is no lack. They preceded the apparatus and bid fair to keep in excess of all appliances.

The botanical laboratory is furnished with forty-one compound microscopes, including one new Zeiss stand with a series of apochromatics, also microtoms, imbedding apparatus, aquaria and the necessary glassware, sterilizing apparatus, and all the most used reagents. During the past year thirty-five students have occupied tables in the botanical laboratory.

In the department of physiology and histology thirty-two students, three of whom were graduate students, have been in attendance. For work in these subjects the laboratory is supplied with thirty-six compound microscopes, a number of dissecting microscopes, two Minot's microtomes, imbedding apparatus and material, a plentiful supply of fixing, hardening and staining reagents, mounting materials, etc. For work in experimental physiology there are provided kymographs of different forms, two registering cylinders of Ludwig's form and one for continuous paper, a pendulum myograph, apparatus for muscle and nerve phenomena, galvanometers and other apparatus for electrical experiments with nerve and muscle, oncometers, plethysmographs, various forms of electrical signals, manometers, time markers, tuning forks for time, apparatus for respiration, for the study of optical and auditory phenomena, tambours, cardigraphs, arteriographs, tonometers, spectroscope, polariscope, spectrophotometer, apparatus for urinalysis, for digestion experiments, dissecting instruments, batteries, etc.

The department of zoology has been quartered in the building at the southwest corner of the quadrangle, containing a lecture room, two laboratories, a small museum room and an office. For the work there are provided twelve compound microscopes, dissecting microscopes, dissecting instruments, collecting apparatus, museum specimens, a series of skeletons, and the other usual appliances of such laboratories. Abundant material for the work has been obtained from the coast.

Advanced work in ichthyology has a considerable stimulus in the presence of a very valuable collection of fishes consisting of over 2,000 species. These are made up in part of carefully selected species from the great collection which had accumulated at the Indiana University by the work of Drs. Jordan and Gilbert and their former students, and in great part by the deep sea dredging of the Albatross in the Pacific, made mainly under the direction of Dr. Gilbert; and in addition a considerable collection of fishes from the Sandwich Islands made by Dr. Jenkins. Thirty students, two graduate students have been accommodated in the department.

The laboratory for the department of entomology is in one of the buildings in the west end of the quadrangle. Prof. Comstock was present during January, February and March of the present year; the work is carried on during his absence by an assistant. The laboratory possesses already a considerable collection of California insects, and there has recently been purchased a very valuable collection of Lepidoptera containing about 2,000 species. Twenty-three students, one graduate student, have taken the work during the year.

The number of students who have applied for work in all these laboratories has been so great that new quarters for their accommodation for the coming year have been arranged for.

The biological work of the University is to continue through the summer at the newly established Hopkins Seaside Laboratory, located at Pacific Grove, on Monterey Bay. The building, now completed, is a substantial wooden structure 60 by 20 feet, especially planned for the work, and exceptionally well lighted. It has on the lower floor two general laboratories, a library and reading room, and a store room; on the upper floor are one general laboratory and six private rooms. In all about fifty students can be comfortably accommodated. The building is a gift of the Pacific Improvement Company and the people of Pacific Grove. The general furnishing, including the pumping plant, aquaria, tables, etc., are furnished through the liberality of Mr. Timothy Hopkins. The microscopes, microtomes, collecting and

other apparatus, as well as the books used are from the University. The location of the laboratory is a most charming one, on the edge of a low cliff overlooking a beach which presents greatly varied collecting grounds. The forms of both animal and plant life are extremely rich in both number and species.

Drs. Gilbert, Jenkins and Campbell are the directors. Three classes of students will be provided for: Students in the biological sciences in the Leland Stanford Junior University; teachers and others wishing to take an elementary course, and investigators. To the last class the use of the laboratory is granted free. The first two classes pay a moderate fee to cover running expenses. Great effort is being made by the directors to get together the means for comfortable and efficient work, and everything bids fair for a profitable summer at the new workshop of science.—O. P. J.

The paleontological exploring expedition sent out by the Museum of Natural History of New York is reported to have been successful in its researches in the Puerco district of New Mexico. Dr. J. L. Wortman, who is in charge, states that the weather was very unpleasant, owing to wind, dust, heat and drought, but that many valuable specimens were obtained. He goes later to the Laramie region to collect Agathaumidæ and other characteristic forms of that horizon.

The session of the Summer School of Science for the Atlantic Provinces of Canada, which opens in St. John on Monday evening, August 1st, will, from present appearances, be largely attended. Arrangements are being made to secure the comfort of those who attend. Intending visitors should make early application for boarding houses, stating what price they wish to pay. Arrangements have been made for reduced fares by rail and steamer. A large gathering from Nova Scotia is promised, and the New Brunswick teachers are expected to be present in considerable force.—*Educational Review.*